

IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF PENNSYLVANIA

HELEN TOTTY, an individual,	)	
	)	
	)	
Plaintiff,	)	
	)	
-VS-	)	
	)	Civil Action No. 05-111
	)	
THE CHUBB CORPORATION, d/b/a THE CHUBB	)	
GROUP OF INSURANCE COMPANIES, and	)	
GREAT NORTHERN INSURANCE COMPANY,	)	
	)	
	)	
Defendants.	)	

AMBROSE, Chief District Judge.

**OPINION**  
**AND**  
**ORDER OF COURT**

The factual and procedural details of this case are well known to the parties, and I need not repeat them in detail here. In short, Plaintiff, Helen Totty ("Plaintiff" or "Totty"), seeks payment under a homeowners' insurance policy issued to her by Defendant Great Northern Insurance Company ("Defendant" or "Great Northern") for damage to her home allegedly caused by a vibratory compactor which the City of Pittsburgh used to repave the road outside her home in July 2002. Plaintiff claims that vibratory waves from the compactor caused densification of sand layers in the underlying soil, resulting in the alleged damage.

Defendant offers the expert testimony of Randal L. Exley of ARCCA Inc. ("Exley") with respect to the causation issue. Exley disagrees with the causation theories of Plaintiff's experts and opines, inter alia, that much of the alleged damage to Plaintiff's home was instead caused by "creep." Pending is Plaintiff's Motion in Limine (Docket No. 51) seeking to exclude Exley's testimony at trial on various grounds. I held a Daubert hearing on this issue on December 19, 2006. After careful consideration of the testimony and evidence presented at the hearing, as well as the parties' pre- and post-hearing submissions and attachments thereto, the Motion in Limine is denied.

## **I. ANALYSIS**

### **A. Daubert Standard and Rule 702**

In Daubert, the Supreme Court held that:

If faced with a proffer of expert scientific testimony, ... the trial court judge must determine at the outset ... whether the expert is proposing to testify to (1) scientific knowledge that (2) will assist the trier of fact to understand or determine a fact in issue. This entails a preliminary assessment of whether the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or methodology properly can be applied to the facts in issue.

Daubert v. Merrell Dow Pharm., Inc. 509 U.S. 579, 592-93 (1993). More recently, in Kumho Tire Co., Ltd. v. Carmichael, 526 U.S. 137, 141 (1999), the Supreme Court clarified any confusion regarding the intended reach of the Daubert decision, by declaring that the trial judge must perform this "basic gatekeeping obligation" to all expert matters, not just "scientific" matters. In the Third Circuit, the trial court's

role as a “gatekeeper” announced in Daubert requires: (1) proof that the proffered witness is qualified as an expert; (2) the expert must testify about matters requiring scientific, technical, or specialized knowledge; and (3) the expert’s testimony must “fit” the facts of the case. In re Paoli R.R. Yard PCB Litig., 35 F.3d 717, 741-42 (3d Cir. 1994). Thus, pursuant to Daubert, the gatekeeping function requires the court to ensure that the expert testimony is both reliable and relevant. Daubert, 509 U.S. at 589; Kumho Tire Co., 526 U.S. at 147.

As to the first requirement - qualification - the Court of Appeals for the Third Circuit has “eschewed imposing overly rigorous requirements of expertise and [has] been satisfied with more general qualifications.” Paoli, 35 F.3d at 741. “Rule 702’s liberal policy of admissibility extends to the substantive as well as the formal qualification of experts.” Id. Thus, an expert can qualify based on a broad range of knowledge, skills, training and experience.

The second inquiry focuses on methodology. The inquiry into methodology is designed to ensure that an expert’s opinions are based upon “‘methods and procedures of science’ rather than on subjective belief or unsupported speculation.” Id. at 742. Factors used to assess reliability include whether: (1) the theory or technique can be tested; (2) the theory or technique has been peer reviewed; (3) there is a high rate of known or potential error; (4) there are standards of control; (5) the theory is “generally accepted”; (6) there is a sufficient relationship between the technique and methods which have been established to be reliable; (7) the expert’s qualifications are sufficient; and (8) the method has been put to non-judicial

uses. See Magistrini v. One Hour Martinizing Dry Cleaning, 180 F. Supp. 2d 584, 594 (D.N.J. 2002), aff'd, 68 F. App'x 356 (3d Cir. 2003). "Some courts also consider additional factors relevant in determining reliability, including: (i) whether the expert's proposed testimony grows naturally and directly out of research the expert has conducted independent of the litigation . . . ; (ii) whether the expert has unjustifiably extrapolated from an accepted premise to an unfounded conclusion. . . ; (iii) whether the expert has adequately accounted for alternative explanations . . . ; (iv) whether the expert is being as careful as he would be in his professional work outside of the litigation context . . . ; and (v) whether the field of expertise asserted by the expert is known to reach reliable results for the type of opinion proffered by the expert . . . ." Id. at 594-95 (citations omitted).

Although this list of factors is lengthy, not each factor will be relevant to every reliability analysis. The "test of reliability is 'flexible.'" Kumho, 526 U.S. at 141. According to the Supreme Court, "Daubert's list of specific factors neither necessarily nor exclusively applies to all experts." Id. The relevance of the Daubert factors depends "on the nature of the issue, the expert's particular expertise, and the subject of his testimony." Id. at 150 (internal quotation marks and citations omitted).

Finally, Daubert and Rule 702 require that the expert's testimony "fit" the facts of the case. "'Fit' requires that the proffered testimony must in fact assist the jury, by providing it with relevant information, necessary to a reasoned decision of the case." Magistrini, 180 F. Supp. 2d at 595 (citing Paoli, 35 F.3d at 743).

## **B. Exley's Qualifications**

Plaintiff does not argue that Exley is unqualified to testify as an expert in this case, and I find, based on the record before me, that Exley is sufficiently qualified to testify as an expert under Federal Rule of Evidence 702 with respect to the cause of the alleged damage to Plaintiff's home.<sup>1</sup>

## **C. Exley's Methodology and Opinions on Causation**

Plaintiff first objects to the admissibility of testimony regarding Exley's opinion that "creep" caused certain damage to Plaintiff's home that is at issue in this case.<sup>2</sup> Specifically, Plaintiff contends that Exley's methodology is unreliable and, therefore, his testimony must be excluded under Daubert and the Federal Rules of Evidence. In support of her argument, Plaintiff complains that Exley based his opinions solely on a visual observation of the home and a review of four other reports created in the case. She contends that Exley did not test the wood; did not provide calculations to support his theory; did not cite to relevant treatises or references; did not explain his conclusions; and did not explain his methodology.

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<sup>1</sup> Among other things, Exley graduated cum laude from the University of Pittsburgh with a degree in civil engineering and is a Certified Professional Engineer. Exley has been inspecting homes to determine the causes of structural distress since 1994 and currently performs approximately 250-270 home inspections per year, 70-80% of which are residential inspections. Hearing Trans. at 41-42 & Ex. A.

<sup>2</sup> Exley defines creep in his report as "long-term deflection of wood framing members" and as an engineering term for "time dependent deformation." Exley Report at 25 (Docket No. 52, Ex. 1). Exley explains that "[c]reep in wood members occurs as the wood fibers in the member gradually slip against one another." Id. He also lists as commonly-observed symptoms of creep: sagging and sloping floors; doors and their frames becoming out of square; random cracking of ceiling plaster due to sagging of floor joists; and diagonal cracking of wall plaster due to sagging of the support structure under the walls. Id. at 26. Exley states in his report that he observed all of these "symptoms" in Plaintiff's home. Id.

I disagree. As set forth below, these objections are either inaccurate or otherwise do not warrant exclusion of Exley's testimony.

At the Daubert hearing, Exley explained the methodology he used to form his opinions. Specifically, he testified that he conducts visual inspections of the property to review the geometry of the structure, determine crack patterns, and to gain an understanding of how structural members deflect. He then applies the geometry to the structural movement and stresses that would occur during that type of movement to reach a conclusion as to causation. See Hearing Trans. at 25-27, 30-32, 43-45. In Plaintiff's case, Exley applied this methodology by visually inspecting the exterior and interior of the home to look for crack patterns consistent with foundation settlement.<sup>3</sup> When Exley did not observe any cracks normally associated with settlement, he looked for alternative causes. Id. at 43-47. Based on his inspection, Exley concluded that long-term deflection of the wood framing ("creep") and thermal expansion and contraction caused the damage at issue. Id.<sup>4</sup>

Exley further testified that the visual inspection method that he employed in Plaintiff's case is the type of method commonly used by structural engineers in determining the cause of foundational and other types of stresses in the home. Id. at 44-46, 64-65. Contrary to Plaintiff's arguments, Exley also listed a number of

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<sup>3</sup> Exley explained that there are well-documented crack types that are associated with foundation settlement. Hearing Trans. at 43.

<sup>4</sup> As set forth in his 28-page report, Exley thoroughly examined every room, hallway, and stairway in Plaintiff's home, and documented his inspection with over 250 photographs. Exley Report at 7-22.

reference materials that support his opinions. Defendant introduced copies of these reference materials as Exhibit C at the hearing, and I agree that they lend support to his conclusions.<sup>5</sup> In addition to these materials, Exley reviewed various other reports and evaluations that had been prepared concerning the cause and/or extent of damage to Plaintiff's home, including reports concerning rainfall records and subsurface soil conditions. Exley Report at 2-7.

Based upon my review of Exley's report, testimony, and supporting documentation, I agree with Defendant that the methodology Exley applied to determine the cause of damage to Plaintiff's home is reliable, helpful to the trier of fact, and otherwise meets the criteria established by Daubert and the Federal Rules of Evidence.

The fact that Exley did not analyze the type of wood contained in the house, did not test the wood (as to moisture content, size, etc.), and/or did not provide calculations to support his theory, does not change my conclusion. Exley testified that these factors had no bearing on his conclusions regarding causation, including his opinion that creep caused much of the damage at issue. Hearing Trans. at 30-31, 56-60. He also explained that structural engineers routinely provide similar opinions without knowing this information. Id. at 59-60. Plaintiff's concerns more appropriately go to the weight, not the admissibility or reliability, of Exley's testimony, and she remains free to highlight these perceived weaknesses through

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<sup>5</sup> Whether or not Exley's references are the best and/or only references is a question of weight, not admissibility.

effective cross-examination at trial. See Walker v. Gordon, 46 F. App'x 691, 695-96 (3d Cir. 2002) ("Determinations regarding the weight to be accorded, and the sufficiency of, the evidence relied upon by the proffered expert, are within the sole province of the jury."); Daubert, 509 U.S. at 596.

Finally, Plaintiff argues that Exley should not be permitted to opine at trial that he disagrees with the McQuade and Milhalcin expert report submitted by Plaintiff. In that report, Plaintiff's experts concluded that vibrations from the construction equipment caused densification of the loose to medium dense sand layer in the Carmichael Deposit under Plaintiff's home and that resultant settlement of the very stiff to hard silty clay layers above the Carmichael Deposit occurred and caused settlement of Plaintiff's home. In his report, Exley reviews and disagrees with McQuade and Milhalcin's conclusions.

I disagree with Plaintiff that Exley's opinion in this regard must be excluded. Although Plaintiff argues that Exley does not provide a reason for his conclusion, Exley's report and his testimony at the Daubert hearing do not support that argument. To the contrary, Exley fully explains that he disagrees that relevant settlement of any type occurred because he did not observe any of the well-documented crack types associated with settlement damage. See, e.g., Exley Report at 22-23. As set forth above, the visual inspection methodology Exley applied to reach this conclusion is reliable and helpful to the trier of fact. Again, Plaintiff is free to vigorously cross-examine Exley regarding these issues at trial.

**II. CONCLUSION**

For all of the reasons set forth above, Plaintiff's Motion in Limine to Exclude the Report and Testimony of Randal L. Exley is denied.

**ORDER OF COURT**

THEREFORE, this **17<sup>th</sup>** day of January, 2007, after careful consideration and for the reasons set forth in the accompanying Opinion, it is Ordered that Plaintiff's Motion in Limine to Exclude the Report and Testimony of Randal L. Exley of ARCCA Inc. (Docket No. 51) is DENIED.

BY THE COURT:

/S/ Donetta W. Ambrose

Donetta W. Ambrose,  
Chief U. S. District Judge